

## DRILLING LOG

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State Elyria, Ohio Start Date September 15, 1981  
 Site Chemical Recovery Systems, Inc. Completion Date September 15, 1981  
 Boring No. W-3 Ground El. 708.42  
 Drilling Firm H.C. Nutting Co. Groundwater El. 698.42  
 Type of Drill CME 750 at completion 697.35  
 Driller J. Martin after 1 day 697.35  
 Geologist Rod Bloese / Ron St. John Total Depth of Boring 34.0

Elev.	Depth	Description	Blow Count	Sample No.	Remarks	Well Const.
708.42		Ground Surface				
704.92	1	<u>Sandy Clay and Gravel (fill)</u>				
	2					
	3					
703.92	4	<u>Weathered Sandstone</u>				
	5	<u>Sandstone - light gray, poor to moderately indurated, very fine grained, very well sorted, well rounded, silica cement, highly permeable, arenitic with trace muscovite and ferromagnetic minerals. Fractures one to four inches apart, iron staining prevalent at top and decreasing w/ depth. Fractures at top contain silty clay fill material, indicating down fracture migration.</u>				
	6					
	7					
	8					
	9					
					Fracture fill indicates down fracture migration	

2/12/82

not for description  
 perhaps - remarks

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Elev.	Depth	Description	Blow Count	Sample No.	Remarks	Well Const.
697.42	11					
	12	Same without fractures and staining				
	13					
	14					
	15					
	16					
	17					
	18					
	19					
	20					
686.42						
		Same with fractures four inches to one foot apart containing hematite and limonite. Organic inclusions are present, as are coal forming with pyrite				
	25					
680.42						
		Same with organic inclusions and no fracturing				

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Elev.	Depth	Description	Blow Count	Sample No.	Remarks	Well Const.
674.42	31	Same with organic inclusions and no fracturing				
	32					
	33					
	34					
	35	End of boring				
		Well specifications - 26.2' of galvanized pipe - 10.0' of well screen (stainless steel) - bentonite seal at bedrock surface - grout from bentonite to surface - stick-up = 1.89'				
25						

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State Elyria, Ohio Start Date September 15, 1981  
 Site Chemical Recovery Systems, Inc. Completion Date September 15, 1981  
 Boring No. W-4 Ground El. 707.90  
 Drilling Firm H.C. Nutting Co. Groundwater El. 697.90  
 Type of Drill CME 750 at completion 697.90  
 Driller J. Martin after 1 day 696.29  
 Geologist Rod Bloese / Ron St. John Total Depth of Boring 33.5

Elev.	Depth	Description	Blow Count	Sample No.	Remarks	Well Const.
707.90		Ground Surface				
703.60	1	<u>Sandy Clay and Gravel (fill)</u>				
	2	Gray				
	3					
	4					
	5	<u>Sandstone - light gray, poor to moderately indurated, very fine grained, very well sorted, well rounded, silica cement, highly permeable, arenitic with trace muscovite and ferromagnetic minerals. Fracturing one to four inches apart and filled with silty clay and iron staining, indicating down fracture migration.</u>				
	6					
	7					
	8					
	9					
					fracture fill indicates down fracture migration	

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not for description  
perhaps remarks

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Elev.	Depth	Description	Blow Count	Sample No.	Remarks	Well Const.
696.90	11	Same				
	12	Same with fracture four inches to one foot apart and with less filling				
	13					
693.90	14					
	15	Same with fractures four to six inches apart and containing hematite, limonite, muscovite and organics				
	16					
	17					
	18					
689.40	19	Same with few fractures and little staining				
	20					

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Boring No.            W-4

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Well specifications

- 26.5' of galvanized pipe
- 10.0' of well screen (stainless steel)
- bentonite seal at bedrock surface
- grout from bentonite to surface
- stick-up = 3.0'

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